Subject Index to Volume 23

A

Acid-base balance

homeostatic potassium excretion, feeding and fasting (sheep), R357

mitochondria, temperature effects, red muscle (carp), R611

Acidosis

metabolic, induced hypercapnia and (turtle), R944

respiratory, renin, ACTH, and aldosterone during, awake state, R431

ACTH: see Adrenocorticotropin
Adenosine monophosphate, cyclic, involvement, lithium-induced polyuria,

Adenosine triphosphate, chloride transport dependent on, membrane vesicles from intestine (seahare), R127

Adenylate kinase, scaled model, metabolic control analysis, R949

Adipose tissue

brown: see Brown fat

morphology and cell dynamics, hypothalamic obesity, R740

Adrenal cortex, renin, ACTH, and aldosterone, hypercapnia and hypoxia, awake state, R431

Adrenal gland

ACTH and cortisol secretion, vasopressin effects, fetus (sheep), R410 cardiovascular function and, fetus (lamb), R706

corticosterone, feeding patterns and, R222

field stimulation, angiotensin II facilitation of, R95

Adrenal medulla

endurance, hepatic fructose 2,6-bisphosphate and, R572

hemodynamic response to hemorrhage and naloxone, R559

Adrenergic response, exercise, isoproterenol and, R834

Adrenocorticotropin

control, corticosteroids, R23 cortisol and, fetal secretion, arginine vasopressin effects (sheep), R410

exercise and, hypoxia effects, R197
renin and aldosterone, acute hypercapnia and hypoxia, awake state, R431
ventromedial hypothalamic lesions, ra-

dio-frequency va. electrolytic, R917 Adrenodemedullation, endurance, fructose 2,6-bisphosphate and, liver, R572

Afferent nerves

neural activity, penis, R989 renal, spinoreticular cell responses to, R268

sympathetic, stimulation, renal nerve and cardiovascular response, R192 vagal, hypotension and (monkey), R857 Aging

central interleukin 1, acute phase responses, melanocyte-stimulating hormone and, R401

cold-induced thermogenesis, following exercise training, R908

head-out water immersion and, renal and endocrine responses, R977 thermogenesis, cold- and norepinephrine-induced, R457

Airway, resistance: see Resistance L-Alanine, uptake, hepatocytes, elasmobranch (skate), R801

ldosterone

inhibition, atrial natriuretic factor, R1011

potassium excretion and feeding and fasting (sheep), R357 model (sheep), R381

release, during hemorrhage, R204 renin and ACTH, acute hypercapnia and hypoxia, awake state, R431

water drinking and, exercise training effects, R417

Alkalosis, respiratory, renin, ACTH, and aldosterone during, awake state, R431

Amiloride, bicarbonate transport and, acidsecreting epithelium (locust), R348 Amino acids

amino acid transport system, broad scope (sand dollar), R485

transport

broad-scope (sand dollar), R485 hepatocytes, elasmobranch (skate), R801

γ-Aminobutyric acid, hypothalamic, sympathetic outflow to cardiovascular system and, awake state, R680

Anesthesia

cardiac output distribution, dehydration and, R109

carotid chemoreceptor, baroreceptor reflexes and, interaction, R1 ANF: see Atriopeptin II; Atrial natriuretic

factor Angiotensin II

facilitation, adrenal field stimulation,

R95 hypernatremia and, subfornical organ

neurons, R746 intrarenal effects, renal response to atrial natriuretic factor, R453

neurohumoral interactions, dehydration, R338

receptor-mediated release, ANF secretion and, R809 subfornical organ efferents, activation of

septal neurons, R544 urinary responses to, drinking and, arterial pressure effects, R69

2,5-Anhydro-D-mannitol, food intake and, R150

Anoxia, anaerobic metabolic rate, induced hypercapnia effects (turtle), R944 ANP: see Atrial natriuretic peptide

Antiduretic hormone: see also Vasopressin pseudopregnancy and, osmoregulation, R478

water drinking and, exercise training effects, R417

Antipyretic, host response, modulated by melanocyte-stimulating hormone, R401

Aorta, septic, vascular effects of cyclic GMP, R436 Aortic depressor nerve, activation of baroand chemoreceptors, R331

Appendectomy, atrial, sodium excretion and, awake state (monkey), R698 Area postrema, reflex inhibition, osmoti-

rea postrema, reflex inhibition, osmotically released vasopressin effects, R815

Arrhythmias, cardiac, arousal from hibernation and (hamster, groundhog, squirrel), R102

Arteriovenous fistula, heart failure, hormonal determinants of sodium excretion, R776

ATPase: see Calcium-ATPase

Atrial natriuretic factor

atrial content of, stretch-induced reduction, R284

baroreflex tachycardia and, R590 clearance, fetal and adult (sheep), R40 head-out immersion

night, R235

renal and endocrine responses, R977 hormonal determinants, experimental heart failure, R776

immunoreactive, endotoxemia, model (sheep), R567 increased secretion, heart failure and,

R185 inhibition of aldosterone and renin.

R1011 opercular epithelium (killifish), R27

renal response to, intrarenal angiotensin II effects, R453 secretion, prohormone release, R809

water drinking and, exercise training effects, R417

Atrial natriuretic peptide

chronic appendectomy effects, sodium excretion, awake state (monkey), R699

hypotensive hemorrhage, renal and endocrine adaptation, R56

interrelationships, renin and blood volume, pregnancy, R793

release, atrial pressure effects, R607 Atriopeptin II, opercular epithelium (killifish), R27

Atropine, capsaicin action, bronchoconstriction, R845

Autoradiography, ³H-thymidine, adipose tissue, hypothalamic obesity, R740 Autoregulation, glomerular filtration rate,

model (chicken), R925 Awake state

bacteremia, plasma catecholamines during, R470

hemodynamic response to hemorrhage and naloxone, adrenal medulla role in, R559

low-dose infusions of atrial peptides, R161

neurohumoral interactions, in dehydration, R338

renal vascular response, hypoxia and hypercapnia, R552 sodium excretion, chronic atrial appen-

dectomy effects (monkey), R699 sympathetic outflow, cardiovascular system, GABA effects, R680 Bacteremia

insulin-stimulated sugar transport, skeletal muscle, R673

plasma catecholamines during, awake state, R470

Bicarbonate, transport, acid-secreting epithelium (locust), R348 Bicuculline, sympathetic outflow and, car-

diovascular system, R680 Bile, amino acids, hepatocytes, elasmo-

branch (skate), R801 Biliary excretion, sulfobromophthalein, R1043

Blockade

vagal, hypotension and (monkey), R857 verapamil, smooth muscle response to oxypressin, R75

Blood-brain barrier, pathogenesis of fever, pattern differences, R633

Blood flow: see also Circulation cerebral, hemodynamic significance of carotid rete (goat), R770 organ, thermal dehydration and, R109

renal α-adrenoceptor responses (sheep),

hypoxia and hypercapnia, awake state,

R552 increased ANF secretion after volume expansion, R185

skin, heat loss, IR thermography, R389 Blood pressure: see also Pressure adrenal gland and, fetus (lamb), R706 arterial, hemodynamic significance of ca-

rotid rete (goat), R770 baroreflex, operant and classical conditioning, R1025

hypercapnia and hypoxia, renin, ACTH, and aldosterone during, awake state, R431

response to adrenal field stimulation, angiotensin II facilitation of, R95 response to hemorrhage and naloxone, adrenal medulla role in, R559

sympathetic nerve discharge, diencephalic regions contributing to, R249 vagal block and (monkey), R857

Blood volume

adrenal gland and, fetus (lamb), R706 ANP, renin interrelations, pregnancy, R793

systemic, dynamic changes in venous outflow, R212

Body

composition, aging, exercise, and thermogenesis, R908

mass, loss, protein and lipid utilization during fasting (penguin), R61 weight: see Weight

Bone, properties of, weightlessness effects,

Bradycardia, cardiac arrhythmias, arousal from hibernation and (hamster, groundhog, squirrel), R102

arginine vasopressin, enhanced fever after castration, R513

cooling, vascular control (reindeer), R730

injury, fluid-percussion, 31P-NMR, R785 metabolism, thyrotropin-releasing hormone, R785

Brain stem, caudal, CCK effects, chronic decerebration, R853

Bronchiolar epithelium, development, response to oxygen and recovery, R755

Bronchoconstriction, capsaicin challenge, substance P action and, R845

Brown fat

cold-induced thermogenesis, following exercise training, R908

fasting and refeeding, nonshivering thermogenesis, R11

mitochondria, protein uncoupling (hamster), R1035

norepinephrine turnover control of (hamster), R960 food and light effects, R821 thermogenesis, aging and, R457

Calcium

flux, branchial transepithelial (trout), R491

metabolism, model, R134

uptake, hypocalcin effects, gill (trout), R891

Calcium-ATPase, high-affinity, branchial transepithelial (trout), R491 Calcium-phosphate, metastable forms,

model, R134 cAMP: see Adenosine monophosphate, cyclic

Capacity, lipogenic, exercise, detraining, starvation, and refeeding effects,

Capsaicin, bronchoconstriction and, R845 Carbohydrates, feeding patterns, corticosterone effects, R222

Carbon dioxide, production, doubly labeled water method, infant, R622

Cardiac hormone, aldosterone and renin inhibition, R1011

Cardiac output

atrial peptide infusion effects, R161 distribution, thermal dehydration, R109 Cardioacceleration, baroreflex-mediated,

ANF attenuation, R590 Cardiomyopathy, norepinephrine turnover, brown fat (hamster), R960

Cardiovascular regulation, septal neuron response, R331

Cardiovascular system

function, adrenal gland and, fetus (lamb), R706

sympathetic outflow, hypothalamic GABA effects, awake state, R680

Carotid rete, hemodynamic significance. changes in arterial blood pressure and (goat), R770

Carotid sinus, baroreflex-mediated cardioacceleration, ANF attenuation,

Castration, enhanced fever after, brain arginine vasopressin and, R513

Catecholaminergic activity, locus coeruleus, after hemorrhage, R289, R296 Catecholamines

exercise and, hypoxia effects, R197

during bacteremia, awake state, R470 hemodynamic response to hemorrhage and naloxone, adrenal medulla role in, R559 removal, rest and exercise, R663

response to adrenal field stimulation, angiotensin II and, R95

vasopressin cells, supraoptic, R711 CCK: see Cholecystokinin

CCK-8: see Cholecystokinin octapeptide Cell dynamics, adipose tissue, hypothalamic obesity, R740

Cellularity, fat depot, aging, exercise, and thermogenesis, R908

Central nervous system

lesions, sodium excretion and, R84 renal nerve activity and, prolonged hemorrhagic shock, R761

Cerebral ventricles

anteroventral third, preoptic lesions, sodium excretion and, R84 pathogenesis of fever, pattern differ-

ences, R633 cGMP: see Guanosine monophosphate, cyclic

Chemoreceptors: see Receptors

Chloride, transport, ATP-dependent, intestine (seahare), R127

Chloride cell, calcium fluxes and, branchial transepithelial (trout), R491

Cholecystokinin

satiety action of, gastric and nongastric mechanisms, R628

sucrose intake and, chronic decerebration, R853

Cholecystokinin octapeptide, continuous infusions, effects on food intake and weight, R17

Chromatography gas, thromboxane receptor activation, endotoxemia (sheep), R310

high-performance liquid, epinephrine release, heart, R659

Chronobiology, norepinephrine turnover, R821

Circulation: see also Blood flow central control, paraventricular nucleus contribution to, R531

peripheral, neurohormones and cardiopulmonary baroreflex, R320

reflex inhibition of, osmotically released vasopressin effects, R815 Cirrhosis, renal function, edema-forming

states, R1017 Clearance

atrial natriuretic factor, fetal and adult (sheep), R40

catecholamines, rest and exercise, R663 osmolar, atrial peptide infusion effects, R161

Clonidine, thermic effect of feeding and, R90

Cold

acclimation, brown fat mitochondria (hamster), R1035

thermogenesis induced by, aging and, R457

Collagen, synthesis, denervation and immobilization effects, skeletal muscle and tendon, R897

Compartmentation, dietary leucine and, R688

Converting-enzyme inhibitor, sodium excretion and, experimental heart failure, R776

Coronary sinus

atrial rate and pressure, ANP release and, R607

epinephrine release, during left stellate ganglion stimulation, R659

Corticosteroida

adrenal, sodium excretion and CNS lesions, R84

control of ACTH, R23

Corticosterone

changes

breeding fast (penguin), R170 circulating osteocalcin and, R828 molting fast (penguin), R178 feeding patterns and, R222

ventromedial hypothalamic lesions, radio-frequency vs. electrolytic, R917

Corticotropin

inhibition of ACTH, R23 plasma, activity after hemorrhage, R289

ACTH and, fetal secretion, arginine vas-

opressin effects (sheep), R410 exercise and, hypoxia effects, R197 feeding and (horse), R524

Coupling, sodium-hydrogen ion, apparent saturation kinetics, freshwater hyperregulators (frog), R948

Creatine kinase, scaled model, metabolic control analysis, R949 Current, short-circuit, atriopeptin II effects

on opercular epithelium (killifish),

Cycloheximide, fever, interferon-induced, R499

D

Decerebration, chronic, sucrose intake, CCK effects, R853

Dehydration

neurohumoral interactions, awake state, R338 thermal, cardiac output distribution in,

R109 2-Deoxy-D-fructose, food intake and, R150

Development: see also Growth medullary inspiratory activity during

(opossum), R578 Dextran, infusion, natriuretic response to volume expansion (monkey), R727

Diabetes, 2,5-anhydro-D-mannitol effects, food intake, R150

Diazoxide, urinary responses to, arterial pressure effects, R69

Diencephalic neurons, sympathetic nerverelated activity, R257

Diencephalic regions, sympathetic nerve discharge and, R249

Diuresia

ANF, during head-out immersion, R235 atrial peptide infusion effects, R161 head-out water immersion and, renal and endocrine responses, R977

homeostatic potassium excretion, feeding and fasting (sheep), R357 immunoreactive atrial natriuretic factor,

model (sheep), R567 Diurnal cycle, corticosterone, feeding patterns and, R222

Dopamine, release, striatal, sinoaortic denervation and, R396

Drinking

 β -adrenergic responsiveness, fasting and thyroid treatment, R33

osmoregulation of thirst, vasopressin and, normal menstrual cycle, R641 urinary responses to angiotensin II and,

arterial pressure effects, R69 water, hormonal and renal responses to, training effects, R417

Edema, formation, renal function and, R1017

Efferent nerve

neural activity, penis, R989

sympathetic, dynamic changes in venous outflow, R212

Elasmobranch, hepatocytes of, L-alanine uptake (skate), R801

Electrolytes

secretion, glomerular renal proximal tubules (fish), R154

water and, balance, vasopressin, menstrual cycle, R641

Electrophysiology, neural activity, penile nerve, R989

Endocrine system, adaptation, hypotensive hemorrhage, atrial natriuretic peptide role in, R56

Endothelial cells, fibrinolytic activity, comparison (human, bovine), R885

Endothelium-derived relaxing factor, vascular effects, aortic sepsis, R436 Endotoxemia

immunoreactive atrial natriuretic factor, model (sheep), R567

insulin-stimulated sugar transport, skeletal muscle, R673

receptor activation, thromboxane (sheep), R310

Endotoxin

experimental fever induced by, pattern differences, R633

pyrogen fever, genesis of, prostaglandin E2, R463

Energy

charge, scaled creatine kinase model, R949

expenditure

clonidine effects on feeding, R90 doubly labeled water method, infant,

provision, exercise and (fish), R302 Enkephalins, hemodynamic response to, adrenal medulla role in, R559 Enzymes: see also specific enzyme

activity, adaptations to exercise, fasting,

Epinephrine

adrenergic modulation, glucagon and insulin secretion, pancreas (sheep), R518

adrenodemedullation, endurance and, R572

exercise and, hypoxia effects, R197

during bacteremia, awake state, R470 removal, rest and exercise, R663

release, heart, during left stellate ganglion stimulation, R659 response to adrenal field stimulation,

angiotensin II facilitation of, R95 Epithelium, acid-secreting, bicarbonate

transport in (locust), R348 Epitrochlearis, basal and insulin-stimulated sugar transport, endotoxemia and bacteremia, R673

Estradiol, GnRH-LH axis, food restriction effects, female, R616

Exercise

detraining, starvation-refeeding and,

energy provision in (fish), R302 hormonal response to, hypoxia and physical training effects, R197

isoproterenol and, maximum heart rate responses, R834

metabolic and structural, chronic intermittent fasting, R877

plasma free fatty acid levels, hepatic vagotomy effects, R602

rest and, regional plasma catecholamine removal, R663

tetanic stimulation of muscle, ion fluxes during, R117 training

cold-induced thermogenesis effects,

hormonal and renal responses to water drinking, R417

Facial vein, cooling, brain (reindeer), R730

β-adrenergic responsiveness, thyroid treatment, R33

breeding changes (penguin), R170 chronic intermittent, adaptations to exercise and, R877

feeding and, homeostatic potassium excretion (sheep), R357

gluconeogenesis, liver and kidney (bird), R903

long-term, protein and lipid utilization (penguin), R61

metabolic responses and, after hepatic vagotomy, R602 refeeding and

exercise detraining effects, R643 nonshivering thermogenesis, brown fat, R11

Fatty acids

free

hepatic, adrenodemedullation effects,

levels, selective hepatic vagotomy effects, R602

membrane lipid composition, thermal acclimation and (crayfish), R870

Feedback, glucocorticoid, inhibition of ACTH, R23

Feeding

chronic intermittent fasting, adaptations to exercise and, R877

dietary leucine, compartmentation, R688 dietary obesity, refeeding hypertension and, R47

fasting and, homeostatic potassium excretion (sheep), R357

food intake

2,5-anhydro-D-mannitol effects, R150 CCK-8 effects, R17

hepatic control, metabolism and, R969 high-fat diet, norepinephrine turnover, brown fat (hamster), R960

light and, norepinephrine turnover, R821 macronutrient self-selection patterns, corticosterone administration effects, R222

plasma hormone effects, ventromedial hypothalamic lesions, R917 renin-angiotensin-aldosterone system

(horse), R524 restriction, GnRH-LH-estradiol axis and, female, R616

satiety action of CCK, gastric and nongastric mechanisms, R628

sucrose intake, CCK effects, chronic decerebration, R853 thermic effects, clonidine and, R90

Fetus: see also Placenta; Pregnancy ACTH and cortisol secretion, arginine vasopressin effects (sheep), R410 adrenal gland, cardiovascular function

and (lamb), R706

α-adrenoceptor responses, renal vascular bed (sheep), R277 atrial natriuretic factor metabolism

(sheep), R40

thoracic duct, lymph flow response to intravascular saline (sheep), R1007

Fever

after central interleukin 1 and α -melanocyte-stimulating hormone, aging and, R401

enhanced, following castration, R513 experimental, pattern differences, R633 interferon and its inducer, R499 pyrogen, genesis of, prostaglandin E₂, R463

Fibrinolytic activity, endothelial cells, comparison (human, bovine), R885

Filtration

glomerular

atrial peptide infusion effects, R161 autoregulation, model (chicken), R925

Fluid

balance, angiotensin II and, R69 secretion, glomerular renal proximal tubules (fish), R154

volume, muscle, tetanic stimulation effects, R117

Fructose, feeding and, hepatic control, R969

Fructose 2,6-bisphosphate, hepatic, liver and, adrenodemedullation effects, R572

G

GABA: see γ-Aminobutyric acid Galactosylhydroxylysyl glycosyltransferase, denervation and immobilization effects, ekeletal muscle and tendon, Fi897

Gastric emptying, satiety action, CCK, R628

Gill, calcium fluxes, branchial transepithelial (trout), R491

Glucagon

changes, breeding fast (penguin), R170 pancreatic, adrenergic modulation of (sheep), R518

Glucocorticoids, feedback, inhibition of ACTH, R23

Gluconeogenesis

endurance and, adrenodemedullation effects, R572

liver and kidney (bird), R903

Glucose

exercise and, hypoxia effects, R197 feeding and, hepatic control, R969 release, hepatocytes, elasmobranch (skate), R801

Glucose-6-phosphate dehydrogenase, exercise, detraining, starvation, and refeeding effects, R648

Glycogen

adaptations to exercise and, R877 anaerobic metabolic rate, induced hypercapnia effects (turtle), R944

energy provision, during exercise (fish), R302

hyperoxia and, bronchiolar epithelium, neonate, R755 muscle, selective hepatic vagotomy effects, R602

GnRH: see Gonadotropin-releasing hormone

Gonadotropin-releasing hormone, luteinizing hormone and, food restriction effects, female, R616

Growth: see also Development adaptation to exercise, chronic intermittent fasting and, R877

bone, weightlessness effects, R78 Growth hormone

exercise and, hypoxia effects, R197 ventromedial hypothalamic lesions, radio-frequency vs. electrolytic, R917

Guanosine diphosphate binding, thermogenesis, aging effects, R457

brown fat, fasting and refeeding effects, R11

mitochondrial, aging, exercise, and thermogenesis, R908

Guanosine monophosphate, cyclic, vascular effects, septic aorta, R436

H

Heart

epinephrine release, during left stellate ganglion stimulation, R659

external work, contractility and oxygen consumption, R933

failure

congestive, neural control of renal function, R1017

experimental, hormonal determinants of sodium excretion, R776 volume expansion, increased ANF secretion after, R185

reflex, prostaglandin I₂, R424 Heart atria, rate, temperature and adrenergic stimulation effects, R840

Heart rate

adrenal gland and, fetus (lamb), R706 arterial pressure relations, alteration during head-out water immersion, awake state, R595 baroreflex, operant and classical condi-

tioning, R1025

baroreflex-mediated cardioacceleration, ANF attenuation, R590

chemoreceptor-baroreceptor reflex interaction, anesthesia, R1 maximum responses to exercise, isopro-

terenol and, R834

refeeding hypertension, dietary obesity and, R47

temperature and adrenergic stimulation effects, R840

variability, spectral analysis (lizard), R242

Heart ventricles, denervation, vasopressin release and, hemorrhage, R204

Heart ventricles, left, distension, dynamic changes in venous outflow, R212 Heat

acclimation, cardiac output distribution in, R109

loss, IR thermography and thermocouple measurement, pinna, R389

Hemoglobin, different types, placental oxygen transport and (sheep), R585 Hemorrhage

adrenal gland and, fetus (lamb), R706 hemodynamic response to, adrenal medulla role in, R559 hypotensive, atrial natriuretic peptide system in, R56

locus coeruleus monoaminergic activity, plasma corticotropin and, R289 locus coeruleus noradrenergic turnover

after, R296 vasopressin release during, ventricular

receptor stimulation of, R204
Hepatocytes

elasmobranch, L-alanine uptake (skate), R801 gluconeogenesis (bird), R903

Hexokinase, decreased activity, paraventricular nucleus, hypertension and, R508

Hibernation

arousal from, cardiac arrhythmias during (hamster, groundhog, squirrel), R102

uncoupling protein, brown fat mitochondria (hamster), R1035

Hormonal changes fasting (penguin), R170 molting (penguin), R178

molting (penguin), R178 Hormonal response

exercise, hypoxia and physical training effects, R197 water drinking, training effects, R417

Hormones: see also specific hormone plasma, ventromedial hypothalamic lesions, R917

Hydrophobicity, amino acid transport system (sand dollar), R485

Hypercapnia

hypoxia and, renin, ACTH, and aldosterone during, awake state, R431 induced, anaerobic metabolic rate and (turtle), R944

renal vascular response, awake state, R552

Hyperglycemia, adrenergic modulation, pancreas (sheep), R518

Hypernatremia, plasma angiotensin II and, subfornical organ neurons, R746 Hyperoxia, bronchiolar epithelium and,

neonate, R755 Hypertension

refeeding, dietary obesity and, R47 renal, hexokinase activity in paraventricular nucleus, R508

Hypocalcin, calcium uptake and, gill (trout), R891

Hypotension

drinking, urinary response to angiotensin II and, R69

renal nerve activity, CNS in, R761 vagal block and (monkey), R857

Hypothalamic neurons, sympathetic nerverelated activity, R257 Hypothalamus

feeding patterns, corticosterone effects, R222

GABA, sympathetic outflow to cardiovascular system and, awake state, R680

paraventricular nucleus

afferent renal nerve pressor response and, R531

angiotensin II and hypernatremia effects, R746

electrical stimulation of, plasma renin activity and, R325

pathogenesis of fever, pattern differences, R633 preoptic lesions, sodium excretion and, **R84**

pyrogenicity of interferon, R499 sympathetic nerve discharge and, anesthesia, R249

ventromedial lesions, food and light effects on norepinephrine, R821

lesions, radio-frequency vs. electrolytic, R917

Hypovolemia locus coeruleus

monoaminergic activity, plasma corticotropin and, R289

noradrenergic turnover increase, R296

hypercapnia and, renin, ACTH, and aldosterone during, awake state, R431 physical training and, hormonal re-

sponse to exercise, R197 renal vascular response, awake state, R552

1

Immersion head-out

altered heart rate-arterial pressure relations, awake state, R595 ANF during, R235

renal and endocrine responses, R977 Indomethacin, fever, interferon-induced, R499

Infant: see Neonate; Newborn

Infarction, myocardial, increased ANF secretion after volume expansion,

D-myo-Inositol 1,4,5-trisphosphate, involvement, lithium-induced polyuria, R863

Insulin

changes, breeding fast (penguin), R170 feeding and, hepatic control, R969 levels, selective hepatic vagotomy effects,

stimulation, sugar transport, skeletal muscle, endotoxemia and bacteremia, R673

ventromedial hypothalamic lesions, radio-frequency vs. electrolytic, R917

Interferon, pyrogenicity of, R499 Interleukin 1

aging and, C-reactive protein, leukocytes and fever after, R401

pyrogen fever, genesis of, prostaglandin E2, R463

Interleukin -1a, recombinant, experimental fever, pattern differences, R633

Intestine, chloride transport, ATP-dependent (seahare), R127 Ions, muscle, intense contraction, hind-

limb, R117 Ischemia, cerebral, CNS in renal nerve ac-

tivity, R761 Isoproterenol

β-adrenergic responsiveness, food deprivation and, R33

ANF and, opercular epithelium (killifish), R27

exercise and, maximum heart rate responses, R834

temperature and, sinoatrial frequency, R840

Isotopes, stable, doubly labeled water method, infant, R622

Kidney

adaptation, hypotensive hemorrhage, atrial natriuretic peptide role in,

afferent nerve pressor response, paraventricular nucleus contribution to,

atrial peptide effects, awake state, R161 endocrine responses and, head-out water immersion, R977

function

edema-forming states, neural control. R1017

hormonal determinants of, experimental heart failure, R776 pentobarbital effects (monkey), R727

gluconeogenesis (bird), R903

hemodynamics, autoregulation, model (chicken), R925

immunoreactive atrial natriuretic factor, endotoxemia model (sheep), R567

potassium excretion, homeostatic regulation, model (sheep), R381

responses to water drinking, exercise training effects, R417

response to atrial natriuretic factor, angiotensin II effects, R453

sodium homeostasis, excretion and equilibration rates, R1001

sympathetic activity, spinally mediated inhibition, R655

tubules: see Kidney tubules vascular bed, α -adrenoceptor responses (sheep), R277

venous occlusion, spinoreticular cell responses to, R268

Kidney tubules

gluconeogenesis (bird), R903 proximal, fluid secretion in (fish), R154

Lactate, anaerobic metabolic rate, induced hypercapnia effects (turtle), R944 Larvae, echinoid, amino acid transport sys-

tem (sand dollar), R485

Leucine, dietary, compartmentation and, R688 Leukocytes, after central interleukin 1 and

α-melanocyte-stimulating hormone, aging and, R401 LH: see Luteinizing hormone

Lidocaine, capsaicin action, bronchoconstriction, R845

Light, feeding and, norepinephrine turnover, R821

Lipids

membrane composition, thermal acclimation and (crayfish), R870 proteins and, utilization in fasting (pen-

guin), R61 Lipogenesis, exercise, detraining, starva-

tion, and refeeding effects, R648 Lithium, polyuria induced by, prostaglandin, cAMP, and vasopressin involve-

ment, R863

Liver

amino acids, hepatocytes, elasmobranch (skate), R801

2,5-anhydro-D-mannitol effects, food intake, R150

chronic intermittent fasting, adaptations to exercise and, R877

feeding control, metabolism and, R969 fructose 2,6-bisphosphate, endurance and, adrenodemedullation effects,

gluconeogenesis (bird), R903 glycogen, selective hepatic vagotomy effects, R602

Locus coeruleus

monoaminergic activity, after hemorrhage, R289 turnover, after hemorrhage, R289

Lungs, hyperoxia, neonate, R755 Luteinizing hormone, GnRH and, food restriction effects, female, R616

Macronutrients, self-selection patterns, corticosterone administration effects, R222

Malic enzyme, exercise, detraining, starvation, and refeeding effects, R648

Mannitol, feeding and, hepatic control, R969

 α -Melanocyte-stimulating hormone, aging and, C-reactive protein, leukocytes and fever after, R401

Membranes, lipid composition, overwintering strategy and, thermal acclimation (crayfish), R870

Menstrual cycle, vasopressin, osmoregulation of thirst and, R641

Metabolic control

analysis, scaled creatine kinase model, R949

feeding, 2,5-anhydro-D-mannitol effects, R150

Metabolic rate

ambient temperature, simultaneous measurement of, R229

anaerobic, induced hypercapnia effects (turtle), R944

Metabolic response, hepatic vagotomy, R602

Metabolites, tissue, induced hypercapnia effects (turtle), R944

α-Methylaminoisobutyric acid, transport, hepatocytes, elasmobranch (skate),

3-O-Methylglucose, insulin-stimulated transport, skeletal muscle, R673

Microdialysis, striatal dopamine release, sinoaortic denervation and, R396

Mitochondria, pH, temperature effects, red muscle (carp), R611

Models

endotoxemia, immunoreactive atrial natriuretic factor (sheep), R567 potassium excretion, homeostatic regula-

tion (sheep), R381 renal hemodynamics, glomerular filtra-

tion rate autoregulation and (chicken), R925

scaled creatine kinase, metabolic control analysis, R949 temporal self-organized, calcium metabo-

lism, R134 Molting, hormonal and metabolic changes

(penguin), R178 Monosodium glutamate, fat cell dynamics,

hypothalamic obesity, R740 Muscimol, sympathetic outflow and, car-

diovascular system, R680 Muscle, metabolism, temperature effects on pH (carp), R611

Muscle, skeletal

basal and insulin-stimulated sugar transport, endotoxemia and bacteremia, R673

collagen synthesis, denervation and immobilization effects, R897

tetanic stimulation, ion fluxes during, hindlimb, R117

Muscular dystrophy, norepinephrine turnover, brown fat (hamster), R960 Myocardium

epinephrine release, during left stellate ganglion stimulation, R659 infarction: see Infarction

N

Naloxone, hemodynamic response to, adrenal medulla role in, R559 Natriuresis

ANF, during head-out immersion, R235 chronic atrial appendectomy effects, awake state (monkey), R699 immunoreactive atrial natriuretic factor,

model (sheep), R567 pressure, CNS lesions and, R84 volume expansion, pentobarbital effects

(monkey), R727 Neonate: see also Newborn hyperoxia, bronchiolar epithelium and,

R755
Nephrotic syndrome, renal function,
edema-forming states, R1017
Neural control, renal function, edema-

forming states, R1017 Neurohumoral interactions, dehydration,

awake state, R338

Neurosecretory cells, vasopressin secretion, supraoptic nucleus, R711

Newborn: see also Neonate α-adrenoceptor responses, renal vascular bed (sheep), 277

Norepinephrine cardiopulmonary baroreflex and, R320 exercise and, hypoxia effects, R197 feeding, clonidine effects, R90 plasma

during bacteremia, awake state, R470 removal, rest and exercise, R663 release, heart, during left stellate gan-

glion stimulation, R659 thermogenesis induced by, aging and,

R457 turnover

control, brown fat (hamster), R960 food and light effects, R821

Nuclear magnetic resonance, phosphorus-31, thyrotropin-releasing hormone, brain injury, R785

0

Obesity

dietary, refeeding hypertension and, R47 hypothalamic, morphology of adipose tissue, R740

ventromedial hypothalamic lesions, plasma hormones and, R917

Opercular epithelium, atriopeptin II effects (killifish), R27

Osmoregulation prolactin and pseudopregnancy effects, R478 vasopresain and, normal menstrual cycle,

R641 Osteocalcin, circulating, corticosterone and, R828 Osteoporosis, steroid, corticosterone and, R828

Oxygen

consumption minimal, optimal contractility and, heart, R933

thermogenesis and aging, R457 recovery and, bronchiolar epithelium response, R755

transport, placental, different hemoglobin types (sheep), R585

uptake, scaled creatine kinase model, R949

Oxyhemoglobin dissociation curve, placental oxygen transport (sheep), R585 Oxypressin, smooth muscle response to, verapamil blockade, R75

Oxytocin analogue, smooth muscle response to, verapamil blockade, R75

P

Pacemaker, cardiac, temperature and adrenergic stimulation effects, R840 Pacing, atrial, ANP release and, R607

glucagon and insulin secretion, adrenergic modulation of (sheep), 518 weight, CCK-8 continuous infusion effects, R17

Paralysis, vasomotor, CNS in renal nerve activity, R761

Paraventricular nucleus

contribution, afferent renal nerve pressor response, R531

electrical stimulation of, plasma renin activity and, R325

metabolic alterations in, hypertension, R508 subfornical organ efferents, activation of

septal neurons, R544
Penile nerve, neural activity, electro-

physiological study, R989 Pentobarbital, natriuretic response and, volume expansion (monkey), R727

Peptides atrial, low-dose infusions, hemodynamic and renal effects, awake state, R161 brain, enhanced fever after castration,

R513 endogenous opioid, hemodynamic response to, adrenal medulla role in,

R559 satiety action of, gastric and nongastric mechanisms, R628

analysis, scaled creatine kinase model, R949

intracellular, bicarbonate transport, acid-secreting epithelium (locust), R348

mitochondria, temperature effects, red muscle (carp), R611

Phorbol, vascular effects, aorta, R436 Physiological mechanisms, diagramming, R717

Pial artery, pressure: see Pressure Placenta: see also Fetus; Pregnancy oxygen transport, different hemoglobin types and (sheep), R585

Plasma

constituents: see specific constituent osmolality, vasopressin and thirst, normal menstrual cycle, R641 Plasminogen activator, fibrinolytic system, endothelial cells (human, bovine), R885

³¹P-NMR: see Nuclear magnetic resonance, phosphorus-31

Polyuria, lithium-induced, prostaglandin, cAMP, and vasopressin involvement, R863

Potassium

conductance, after action potential bursts, vagal C fibers, R443 excretion

homeostatic, feeding and fasting (sheep), R357

homeostatic regulation, model (sheep), R381

feeding effects, renin-angiotensinaldosterone system (horse), R524

Potentials action, bursts, potassium conductance after, vagal C fibers, R443

after, vagal C fibers, R443 phosphorylation, scaled creatine kinase model, R949

Pregnancy: see also Fetus; Placenta prolactin and, osmoregulation, R478 renin and blood volume, atrial peptide interrelations, R793

vasopressin, osmoregulation of thirst and, R641

Pressor response, afferent renal nerve, paraventricular nucleus and, R531

Pressure: see also Blood pressure arterial

afferent renal nerve pressor response and, R531

chemoreceptor-baroreceptor reflex interaction, anesthesia, R1

drinking and response to angiotensin II, R69

heart rate relations, alteration during immersion, awake state, R595 paraventricular nucleus, hypertension and, R508

atrial peptide infusion effects, R161 release of atrial natriuretic peptide and, R607

insufflation, capsaicin and bronchoconstriction, R845 pial artery, hemodynamic significance of

carotid rete (goat), R770

Pressure-volume relations, minimal oxygen consumption, constant external

work of heart, R933 Prohormone, receptor-mediated release, ANF secretion and, R809

Prolactin, pseudopregnancy and, osmoregulation in, R478

Prolyl 4-hydroxylase, denervation and immobilization effects, skeletal muscle and tendon, R897

Prostaglandins brain, enhanced fever after castration, R513

experimental fever induced by, pattern differences, R633

Prostaglandin E2

genesis of pyrogen fever and, R463 involvement, lithium-induced polyuria, R863

Prostaglandin I₂, baroreflex control, renal nerve, R424

Protein

breakdown, compartmentation of leucine, R688 C-reactive, after central interleukin 1 and α -melanocyte-stimulating hormone, aging and, R401

lipids and, utilization in fasting (penguin), R61

plasma, saline infusion and, fetus (sheep), R1007

uncoupling

brown fat, fasting and refeeding effects, R11

brown fat mitochondria (hamster), R1035

Pseudopregnancy, prolactin and, osmoregulation in, R478 Puberty, food restriction, LH and, female,

R616
Pump, sodium-potassium, action potential

bursts, vagal C fibers, R443 Pyrogen

endogenous, experimental fever induced by, pattern differences, R633 enhanced fever, following castration, R513

Pyrogenicity, interferon, R499

R

Receptors
β-adrenergic
refeeding hyp

refeeding hypertension, dietary obesity, R47

responses, renal vascular bed (sheep), R277

thyroxine and, fasting, R33 α- and β-adrenergic, modulation of glucagon and insulin secretion, pancreas (sheep), R518

atrial, ANF, stretch-induced reduction, R284

baroreceptors

activation, septal neuron response to, R331 arterial, operant and classical condi-

tions, R1025 carotid, ANF attenuation, R590

carotid, ANF attenuation, R590 head-out water immersion and, awake state, R595

cardiac, stimulation, renal nerve and cardiovascular responses, R192 chemoreceptors, cardid, interaction.

chemoreceptors, carotid, interaction, anesthesia and, R1

mechanoreceptors, renal, spinoreticular cell responses to, R268

venous, hypotension and (monkey), R857

ventricular prostaglandin I₂ and cardiac reflex, R424

vasopressin release and, hemorrhage, R204

Reflexes

baroreflex

cardiopulmonary, neurohormones and, R320 carotid, ANF attenuation, R590

carotta, ANF attenuation, R090 interaction, anesthesia and, R1 left ventricular distension and, changes in venous outflow, R212 neurohumoral interactions in dehydration, R338

operant avoidance or classical aversive conditioning, R1025

prostaglandin I₂ effects, heart, R424 cardiopulmonary, osmotically released vasopressin effects, R815 cardiovascular, vasopressin release and, hemorrhage, R204

renal, spinoreticular cell responses to, R268

Renal nerve

activity, CNS in, prolonged hemorrhagic shock, R761

afferent, pressor response, paraventricular nucleus and, R531

electrical stimulation of paraventricular nucleus, R325

kidney function and, edema-forming states, R1017

response, cardiac receptor stimulation, R192

Renin

ACTH and aldosterone, acute hypercapnia and hypoxia, awake state, R431 blood volume and ANP relations, pregnancy, R793

inhibition, atrial natriuretic factor, R1011

plasma activity

electrical stimulation of paraventricular nucleus, R325

water drinking, exercise training effects, R417

release, during hemorrhage, R204 sodium excretion and, CNS lesions, R84 Renin-angiotensin-aldosterone system

feeding effects (horse), R524 hypotensive hemorrhage, renal and endocrine adaptation to, R56

Renin-angiotensin system cardiopulmonary baroreflex and, R320 drinking and, arterial pressure effects,

electrical stimulation of paraventricular nucleus, R325

hormonal determinants, experimental heart failure, R776

inhibition, atrial natriuretic factor, R1011

Resistance

airway, capsaicin challenge, R845 total peripheral, head-out water immersion and, awake state, R595

Respiratory control, inspiratory activity, during development (opossum), R578

Respiratory neurons, medullary, development (opossum), R578

Rhythm

circadian

during head-out immersion, R235 renin-angiotensin-aldosterone system (horse), R524

\mathbf{s}

Saline

hypertonic, infusion, thirst and vasopressin in menstrual cycle, R641 intravascular, thoracic duct lymph flow response, fetus (sheep), R1007

Satiety: see also Feeding CCK action, gastric and nongastric mechanisms, R628

CCK-8 effects, food intake, R17 sucrose intake, CCK effects, chronic decerebration, R853

Saturation kinetics, apparent, sodium influx, freshwater hyperregulators (frog), R984 Secretory granules, bronchiolar epithelium, hyperoxia and, neonate, R755

Sepsis

immunoreactive atrial natriuretic factor, model (sheep), R567 vascular effects of cyclic GMP, aorta, R436

Septal neurons, activation of, subfornical organ and cardiovascular influences, R544

Septic shock: see Shock

Septum, neurons, activation of baro- and chemoreceptors, R331

Sex differences, GnRH-LH-estradiol axis, food restriction and, female, R616

Shock

hemorrhagic, CNS role in renal nerve activity, R761

septic

insulin-stimulated sugar transport, skeletal muscle, R673 plasma catecholamines in, awake

state, R470

Sinoaortic denervation, striatal dopamine release in, microdialysis, R396

Sinoatrial node, frequency, temperature and adrenergic stimulation effects, R840

Skin, sodium influx, freshwater hyperregulators (frog), R984

Sodium

excretion

atrial natriuretic factor and, angiotensin II, R453

atrial peptide infusion effects, R161 chronic atrial appendectomy effects, awake state (monkey), R699

CNS lesions and, R84 hormonal determinants of, experimental heart failure, R776

feeding effects, renin-angiotensin-aldosterone system (horse), R524

homeostasis, kinetics, R1001 influx, apparent saturation kinetics, freshwater hyperregulators (frog), R948

inhibition, atrial natriuretic factor, R1011

potassium excretion and, feeding and fasting (sheep), R357

retention, sodium, edema-forming states, R1017

Sodium-ammonium exchange, bicarbonate transport and, acid-secreting epithelium (locust), R348

Soleus muscle, basal and insulin-stimulated sugar transport, endotoxemia and bacteremia, R673

Solitary nucleus, excitation, supraoptic vasopressin cells, R711 Spaceflight, weightlessness effects, bone

growth, R78 Spantide, capsaicin action, bronchocon-

striction, R845 Species differences, sympathetic afferent stimulation, renal nerve and cardiovascular response, R192

Spectral analysis, heart rate variability (lizard), R242

Spinoreticular cell, responses, renal venous and ureteral occlusion, R268

Spironolactone, potassium excretion and, feeding and fasting (sheep), R357 Spleen, sympathetic activity, spinally me-

diated inhibition, R655

Stannius corpuscles, hypocalcin from, calcium uptake and, gill (trout), R891 Starvation: see Fasting

Stellate ganglion, left, stimulation, epinephrine release, heart, R659

Stomach

satisty action, CCK, R628 sympathetic activity, spinally mediated

inhibition, R655 Subfornical organ neurons

plasma angiotensin II, hypernatremia and, R746

septal, activation of, cardiovascular influences, R544

Substance P, reflex bronchoconstriction, capsaicin challenge and, R845

Sucrose, intake, CCK effects, chronic decerebration, R853 Sulfobromophthalein, excretion, determi-

nation, R1043

Supraoptic nucleus

cells, vasopressin secretion, R711 plasma angiotensin II, hypernatremia and, R746

Sympathetic activity

abdominal and lumbar, spinally mediated inhibition, R655

bacteremia and, awake state, R470 Sympathetic nerve

activity

CNS in, prolonged hemorrhagic shock, R761

diencephalic neurons, R257 prostaglandin I₂ and cardiac reflex, R424

discharge, diencephalic regions contributing to, R249

head-out water immersion and, awake state, R595

Sympathetic nervous system clonidine effects, feeding, R90 norepinephrine turnover, brown fat

(hamster), R960 outflow, cardiovascular system, GABA effects, swake state, R680 refeeding hypertension, dietary obesity

Т

Tachycardia atrial rate and pressure, ANP release and, R607

baroreflex, ANF attenuation, R590 Temperature

and, R47

adrenergic stimulation and, sinoatrial frequency, R840

pH of mitochondria and, red muscle (carp), R611

surface, distribution, pinna, IR thermography, R389
Temperature, body, regulation, simultane-

ous measurement, R229
Thalamus, medial, sympathetic nerve dis-

charge and, R249
Thermal acclimation, overwintering strat-

egy, membrane lipid composition and (cravfish), R870

Thermogenesis

cold- and norepinephrine-induced, aging effects, R457

cold-induced, following exercise training, R908

feeding and, clonidine effects, R90 nonshivering

brown fat, fasting and refeeding, R11 protein, brown fat mitochondria (hamster), R1035

norepinephrine turnover, brown fat (hamster), R960

Thermogenin, uncoupling protein, brown fat mitochondria (hamster), R1035

Thermography, infrared, heat loss, pinna, R389

Thermoregulation brain (reindeer), R730 heat loss, pinna, R389

pyrogenicity, interferon and its inducer, R499

Thirst: see Drinking

Thoracic duct, lymph flow response, saline infusion and, fetus (sheep), R1007

Thromboxane

genesis of, prostaglandin E_2 , R463 receptor-mediated responses, endotoxemia (sheep), R310

Thyroid, treatment, fasting and, β-adrenergic responsiveness in, R33
Thyroid borrones, changes, breeding fast

Thyroid hormones, changes, breeding fast (penguin), R170

Thyrotropin-releasing hormone, brain injury, ³¹P-NMR, R785 Thyroxine, β-adrenergic responsiveness,

Thyroxine, β-adrenergic responsiveness, food deprivation and, R33 Triiodothyronine

β-adrenergic responsiveness, food deprivation and, R33

norepinephrine turnover, brown fat (hamster), R960

U

Ureter, occlusion, spinoreticular cell responses to, R268 Uric acid, protein and lipid utilization,

long-term fasting (penguin), R61 Uterus, response to oxypressin, verapamil blockade, R75

V

Vagal C fibers, action potential bursts, slow potassium conductance after, R443

Vagotomy, hepatic, metabolic responses after, R602

Vagus nerve

action potential bursts, slow potassium conductance after, R443

capsaicin, reflex bronchoconstriction and, R845

Vasoconstriction, reflex, neurohormones

and, R320

Vasopressin: see also Antidiuretic hormone angiotensin II and, subfornical organ neurons, R746

arginine

ACTH and cortisol secretion induced by, fetus (sheep), R410 enhanced fever after castration, R513

enhanced fever after castration, R513 hypoxia and hypercapnia, awake state, R552

pseudopregnancy and, osmoregulation, R478

involvement, lithium-induced polyuria, R863

neurohumoral interactions, dehydration, R338

osmotically released, cardiopulmonary reflexes and, R815

paraventricular nucleus contribution, afferent renal nerve pressor response, R531

receptor-mediated release, ANF secretion and, R809

release, ventricular receptor stimulation of, during hemorrhage, R204

secretion, supraoptic nucleus cells, R711 Vasopressin analogue, smooth muscle response to, verapamil blockade, R75

Venous outflow, dynamic changes, baroreflex and left ventricular distension, R212

Ventilation, chemoreceptor-baroreceptor reflex interaction, anesthesia, R1 Ventricles: see Cerebral ventricles; Heart

ventricles Verapamil, blockade: see Blockade Veratridine, cardiopulmonary reflex, circu-

lation, R815
Volume: see also Blood volume

expansion chronic atrial appendectomy effects,

awake state (monkey), R699 increased ANF secretion after, heart failure, R185

natriuretic response to, pentobarbital effects (monkey), R727

loading, fetal thoracic duct lymph flow response (sheep), R1007 plasma

during head-out immersion at night, R235

thermal dehydration and, R109 regulation, atrial natriuretic factor, R1011

w

Water, head-out immersion, altered heart rate-arterial pressure relations, awake state, R595

Weaning, doubly labeled water method, R622

Weight, body, CCK-8 continuous infusion effects, R17 Weightlessness, properties of growing bone

and, R78

Author Index to Volume 23

Aibiki, M., R761 Alexander, N., R396 Allweis, C., R717 Ammons, W. S., R268 Anderson, S., R793 Applegate, R. J., R815 Arogyasami, J., R572 Atkinson, K. J., R834, R840

Baker, S. P., R33 Ballatori, N., R801 Ballermann, B. J., R793 Bangsbo, J., R197 Barazanji, M., R727, R857 Barbee, R. W., R185 Barker, S., R424 Barman, S. M., R249, R257 Barron, W. M., R478 Bartha, K., R885 Bealer, S. L., R84 Béliveau, L., R663 Bell, R. C., R401 Bellis, S., R485 Benjamin, B. A., R699 Bergasa, N. V., R1043 Bergren, D. R., R845 Beyenbach, K. W., R154 Bie, P., R161 Binder, B. R., R885 Birks, R. I., R443 Bishai, I., R463 Bishop, V. S., R338, R815 Bistrian, B. R., R688 Blackburn, G. L., R688 Bolds, J. M., R310 Bolter, C. P., R834, R840 Bosnjak, Z. J., R212 Boudreau, G., R659, R663 Boyer, J. L., R801 Brace, R. A., R1007 Braley, L. M., R1001 Brands, M.W., R1011 Bray, G. A., R821 Brenner, B. M., R793 Brezillon, P., R134 Brisson, G., R663 Brizzee, B. L., R552 Bronson, F. H., R616 Brosnan, J. T., R903 Brunner, M. J., R1 Buck, L. T., R611 Burnett, J. C., Jr., R56, R453, R776

Calaresu, F. R., R331
Caldwell, R. W., R84
Cann, C. E., R828
Cardinal, R., R659
Carlson, D. E., R289, R296
Carrell, D. T., R572
Castro, L., R40
Castro, R., R40
Caverson, M. M., R531
Cherel, Y., R170, R178
Chien, Y. W., R185
Ciriello, J., R531, R746
Clarke, L. L., R524
Claybaugh, J. R., R417, R977

Cliff, W. H., R154 Coceani, F., R463 Cole, T. J., R622 Connett, R. J., R949 Corey, S. P., R95 Cornish, K. G., R727, R857 Coward, W. A., R622 Cowley, A. W., Jr., R590 Curran-Everett, D. C., R595

Dallman, M. F., R917 Dao, T. K., R401 Davis, J. P., R485 Day, T. A., R711 De Bold, A. J., R235 De Champlain, J., R659 De Groat, W. C., R989 Denison, A. L., R1025 Desautels, M., R1035 De Vera Porcell, L., R242 Diakun, T. A., R102 DiBona, G. F., R1017 DiCarlo, S. E., R815 Dice, M. S., R417 Diéguez, G., R770 DiMicco, J. A., R680 DiNovi, M. J., R150 Dobson, G. P., R302 Donevan, S. D., R544 Dulos, R. A., R1035

Eagles, D. A., R102 Ebert, T. J., R590 Edwards, B. S., R56, R453 Ernsberger, P., R47 Ervin, M. G., R40 Esquerré, K. R, R917 Evered, M. D., R69 Ewing, G., R622

Faden, A. I., R785 Farber, J. P., R578 Faucher, D. J., R410 Favier, R. J., R877 Feng, J., R401 Ferguson, A. V., R544 Fichtenbaum, B., R524 Fisher, D. A., R40 FitzGerald, G. A., R310 Flik, G., R491, R891 Flora-Ginter, G., R204 Fluharty, S. J., R95 Flynn, J. T., R567 Flynn, T. G., R809 Folkow, L. P., R730 Frain, M., R61 Freeman, R. H., R1011 Freund, B. J., R417 Friedman, M. I., R150, R969 Frohlich, E. D., R185 Frohman, L. A., R917 Fujita, T., R761 Futaki, S., R933

Gaddis, R. R., R559 Galbo, H., R197 Ganjam, V. K., R524 Gann, D. S., R289, R296 García-Villalón, A. L., R770 Garner, H. E., R524 Gaskill, M. B., R641 Gazis, D., R75 Gebber, G. L., R249, R257 Gelsema, A. J., R331 Gerencser, G. A., R127 Gilmore, J. P., R727, R857 Goetz, K. L., R161, R204 Gómez, B., R770 Gonzalez, G., R75 Gonzalez Gonzalez, J., R242 Gordon, C. J., R229 Green, D. M., R357 Gregg, C. M., R925 Grill, H. J., R853 Grindeland, R. E., R78, R828 Groscolas, R., R61 Gutman, M. B., R746

Hagino, A., R518 Hajdu, M. A., R424 Hall, B., R903 Hamilton, J. S., R457 Hammer, R. L., R572 Hansen, R. J., R648 Haramati, A., R776 Hashimoto, K, R863 Hashiro, G. M., R417 Hasser, E. M., R815 Hatfield, D., R524 Hattori, T., R740 Heath, J. E., R389 Heigenhauser, G. J. F., R117 Hemker, D. P., R1025 Herman, P. J., R1017 Herndon, D. N., R567 Herzberg, G. R., R903 Heublein, D. M., R56 Himms-Hagen, J., R960 Hiramori, K., R933 Hochachka, P. W., R302, R611 Hoffman, A., R776 Hoka, S., R212 Hollenberg, N. K., R1001 Holtzman, E. J., R1001 Hong, S. K., R235, R595 Horowitz, M., R109 Horwitz, B. A., R457, R908 Huang, Z.-S., R249

Istfan, N. W., R688 Iwamoto, J., R977 Iwata, N., R396

Jackson, D. C., R944 Jacques, L. B., R102 Jaeger, L. F., R90 Jameson, D. M., R401 Jennings, G., R11 Johnsen, H. K., R730 Jones, S. B., R470

Kampine, J. P., R212 Kanai, K., R761 Kaneda, N., R396 Karmann, H., R170 Kasting, N. W., R513 Katovich, M. J., R33 Kaufman, S., R284 Keeton, T. K., R338 Keller-Wood, M., R23 King, B. M., R917 Kirschner, L. B., R984 Kjær, M., R197 Koubi, H. E., R877 Koyama, S., R761 Krasney, J. A., R595 Krukoff, T. L., R508 Kühl, P. G., R310 Kumar, B. A., R222 Kusunoki, T., R740

Lafeber, F. P. J. G., R891 Lam, R. W., R40 Lamontagne, D., R659 Laptook, A. R., R410 Lavoie, J.-M., R602 Leadley, R. J., Jr., R161, R204 Leake, R. D., R40 Lee, V. M., R648 Lees, J., R463 Leloup, J., R178 Le Maho, Y., R61, R170, R178 Liebowitz, S. F., R222 Lightman, S. L., R607 Lin, M. T., R499 Lindheimer, M. D., R478 Lindinger, M. I., R117 Ling, P. R., R688 Lipton, J. M., R401 Lluch, S., R770 Lord, M., R602 Lortie, G., R197 Lowney, P., R648 Loyd, J. E., R310 Lubbesmeyer, H. J., R567 Lucas, A., R622 Luft, F. C., R680 Lukaszewski, L., R17 Luo, R., R212

MacAnespie, C. L., R1 MacPhee, A. A., R185 Malkinson, T. J., R513 Mallory, B., R989 Mandel, L. J., R1043 Massaro, D., R755 Massaro, G. D., R755 Matherne, G. P., R277 McCoy, L., R755 McDonald, R. B., R457, R908 McHugh, P. R., R628 McIntosh, T. K., R785 McKenna, T. M., R436 McNamara, C., R320 Meikle, A. D. S., R284 Mendlowitz, M., R75 Meschia, G., R585 Metzler, C. H., R699 Miki, K., R235, R977 Milhaud, G., R134 Milojevic, S., R809 Miyakawa, K., R761 Miyazawa, T. M., R331 Mogenson, G. J., R746

Mohanty, P. K., R320 Mohler, F. S., R389 Molina, R. D., R585 Moran, T. H., R628 Morey-Holton, E. R., R828 Morimoto, A., R633 Moyes, C. D., R611 Murakami, N., R633 Myllylä, R., R897 Myllylä, V., R897

Nadeau, R., R659, R663 Nadel, A. S., R793 Nagatsu, T., R396 Nakahara, D., R396 Nakamori, T., R633 Nakamura, K. T., R277 Nelson, D. O., R47 Netchitailo, P., R170 Niitani, S., R192 Nozawa, T., R933

Ochi, M., R740 Oda, S., R518 Ohba, H., R192 Ohneda, A., R518 Ono, T., R633 Opgenorth, T. J., R453 Ota, Z., R863 Ozaki, N., R396

Panzenbeck, M. J., R424
Parker, C. R., R410
Parkhouse, W. S., R302
Patterson-Buckendahl, P. E., R825
Paulin, A., R602
Perault-Staub, A. M., R134
Péronnet, F., R659, R663
teeraPerry, S. F., R491, R891
Peterson, T. V., R699
Pfennig, T. W., R1025
Phillips, J. E., R348
Pittman, Q. J., R513
Pitts, E., R607
Porter, J. C., R410
Porter, J. C., R410
Porter, J. P., R325

Praissman, M., R17 Pruitt, N. L., R870

Quale, J. M., R1043

Rabinowitz, L., R357, R381
Raff, H., R431
Rafka, R., R150
Rawashdeh, N. M., R706
Ray, N. D., R706
Roarty, T. P., R431
Roberts, S. B., R622
Robertson, G. L., R641
Robillard, J. E., R277
Robin, J.-P., R61, R170
Robinson, M. M., R69
Rogerson, M., R903
Rose, J. C., R706
Rose, P. A., R69
Rosenfeld, C. R., R410
Ross, M. G., R40
Ryberg, A., R857

Sagawa, S., R235, R977 Samueloff, S., R109 Sarason, R. L., R357 Sardet, C., R61 Sasaki, Y., R518 Sasaoka, T., R396 Savage, J., R622 Savolainen, J., R897 Sawada, T., R740 Sawin, L. L., R1017 Sayeed, M. M., R470, R673 Schadt, J. C., R559 Scheide, J. I., R27 Schramm, L. P., R655 Schreiber, J., R641 Schwab, T. R., R56, R453 Schwartz, R. S., R90 Sellers, T. L., R572 Shakes, D. C., R828 Shammas, R. A., R1025 Shaw, S. R., R78 Sherman, D., R40 Shiraki, K., R235, R977 Showalter, C. J., R453

Sibbald, J. R., R711
Siegel, R. M., R443
Sigurdson, S. L., R960
Siker, D., R212
Silver, R. B., R944
Smith, G. P., R853
Snapper, J. R., R310
Songu-Mize, E., R84
Sonnenberg, H., R809
Sowers, J. R., R320
Spiteri, C., R607
Staub, J. F., R134
Steers, W. D., R989
Stephens, G. C., R485
Stephenson, R. B., R1025
Stern, J. S., R457, R648, R908
Suga, H., R933
Sugawara, M., R863
Sutton, R., R607

Taboada, J., R102 Tajima, F., R977 Takala, T. E. S., R897 Tan, W., R424 Tanaka, N., R933 Taylor, R. F., R655 Thames, M. D., R320 Thomson, J. M., R348 Thomson, R. B., R348 Thrivikraman, K. V., R289, R296 Tomomatsu, E., R192 Tordoff, M. G., R150, R969 Traber, D. L., R567 Traber, L. D., R567 Tracqui, P., R134 Trapani, A. J., R338 Trayhurn, P., R11 Trippodo, N. C., R185 Trudeau, F., R663 Tsuda, T., R518 Turner, C. S., R706

Uenishi, M., R933 Undesser, K. P., R338

Väänänen, K., R897

Vailaa, A. C., R78 Varner, K. J., R249, R257 Veale, W. L., R513 Veith, R. C., R90 Veress, A. T., R809 Vihko, V., R897 Vink, R., R785 Vokes, T. J., R641 Vollmer, R. R., R95

Wagner, C. W., R102 Wagner, O. F., R885 Walch, O., R170 Walker, B. R., R552 Wallace, A., R1 Walsh, K. P., R607 Wang, B. C., R161, R204 Wasser, J. S., R944 Watanabe, T., R633 Weiss, N. M., R641 Wendelaar Bonga, S. E., R891 Westfall, M. V., R470, R673 Wible, J. H., Jr., R680 Wideman, R. F., Jr., R925 Wilkening, R. B., R585 Williams, G. H., R1001 Williams, T. D. M., R607 Winaver, J., R776 Winder, W. W., R572 Wojta, J., R885 Won, S. J., R499 Woodson, L., R567

Yagi, S., R192 Yamaguchi, N., R659 Yamauchi, H., R357 Yang, H. T., R572 Yasumura, Y., R933 Yeh, L.-F., R33 Yip, C., R809 Yoshida, T., R821 Yoshida, Y., R192 Yoshida, P., R192 Yoshida, Y., R192

Zadunaisky, J. A., R27 Zernicke, R. F., R78 Zimmerman, R. S., R56, R453 Zucker, I. H., R424

